

New England Biolabs Certificate of Analysis

Product Name: Blue Protein Loading Dye
Catalog Number: B7703S
Packaging Lot Number: 10103243
Expiration Date: 04/2024
Storage Temperature: -20°C
Specification Version: PS-B7703S v2.0
Composition (1X): 187.5 mM Tris-HCl, 6 % (w/v) SDS, 30 % Glycerol, 0.03 % Bromophenol Blue, (pH 6.8 @ 25°C)

Blue Protein Loading Dye Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
B7705SVIAL	30X Reducing Agent	10103816	Pass
B7703SVIAL	Blue Protein Loading Dye	10093120	Pass


Assay Name/Specification	Lot # 10103243
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart® Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Blue Protein Loading Dye incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Electrophoretic Pattern The components of the Blue Protein Loading Dye are tested to ensure the banding pattern of an NEB protein ladder on a 10-20% Tris-Glycine gel shows discrete, clearly identifiable bands at each size fragment of the marker when stained with Coomassie Blue at a concentration of 0.1%.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart® Buffer containing 1 µg of 1 kb Plus DNA Ladder DNA and a minimum of 5 µl of Blue Protein Loading Dye incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of Blue Protein Loading Dye is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass

This product has been tested and shown to be in compliance with all specifications.

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Michael Dalton
Production Scientist
15 Apr 2021



Michael Tonello
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15 Apr 2021